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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,323	10/23/2001	Jeffrey L. Kodosky	5150-46000	3183

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EXAMINER	
THAI, CUONG T	

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/072,323	KODOSKY, JEFFREY L.	
	Examiner	Art Unit	
	CUONG T THAI	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *October 04, 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

FINAL ACTION

1. Claims 1-39 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

> A person shall be entitled to a patent unless:
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-39 are rejected under 35 U.S.C. 102 (b) as being anticipated by Kodosky et al. (USPN: 5,301,301) hereinafter Kodosky.

As per claim 1 (method) and 19 (memory medium), Kodosky discloses a computer implemented method for associating a first block diagram with a user interface element, the method comprising:

Displaying the user interface element is taught by Kodosky as the technique of a LabVIEW user constructs a virtual instrument building block by defining an icon and connector for a virtual instrument. In defining the connector for user associate each terminal of the connector with an indicator or control on the front panel of the VI (see col. 4, lines 16-22);

Receiving user input specifying the first block diagram to associated with the user interface element, wherein the first block diagram includes a plurality of nodes visually

indicating functionality of the user interface element is taught by Kodosky as the technique of a virtual instrument building block by defining an icon and connector for a virtual instrument. In defining the connector for user associate each terminal of the connector with an indicator or control on the front panel of the VI (see col. 4, lines 16-22) and once the icon and the connector have been constructed, it is then possible to use the VI as a node in a diagram (see col. 4, lines 23-25 and see Figs. 2 for nodes icon 44, 48, and 50). For example, Fig. 3 is a screen display showing an exemplary data flow block diagram which can be produced by the VI system (see col. 2, lines 23-25);

Associated the first block diagram with the user interface element, wherein the first block diagram is operable to control functionality of the user interface element is taught by Kodosky as the technique of a library of **function icons**, each representing a **mathematical operation to be performed on specified input data to generate output data** (see col. 8, lines 53-55).

These claims are therefore rejected for the reason as set forth above.

As per claim 2, the limitation of wherein the interface element comprising one of a user interface control or a user interface indicator is taught by Kodosky as the technique of LabVIEW user constructs a virtual instrument building block by defining an icon and connector for a virtual instrument. In defining the connector for user associate each terminal of the connector with an indicator or control on the front panel of the VI (see col. 4, lines 16-22). This claim is therefore rejected for the reason as set forth above.

As per claims 3 (method) and 20 (memory medium), the limitation of wherein the first block diagram comprises a plurality of interconnected nodes that visually indicate functionality of the user interface element is taught by Kodosky as the technique of Figs. 3 and Fig. 7 are screen display showing an exemplary data flow block diagram and the TEMP SYS including plurality of nodes icons. These claims are therefore rejected for the reasons as set forth above.

As per claim 4, the limitation of wherein receiving user input specifying the first block diagram comprises arranging the plurality of nodes on a display and interconnecting the plurality of nodes in response to the user input are taught by Kodosky as the techniques of LabVIEW users create VIs which can be used as building blocks in other VIs. VIs are analogous to subroutines so it is useful to display the hierarchical relationship of VIs (see col. 4, lines 54-57) and Fig. 7 shows an illustrative diagram. The hierarchical diagram shows each VI icon exactly once and each icon has lines to all the other icons that is directly uses in its block diagram (see col. 4, lines 59-62). This claim is therefore rejected for the reasons as set forth above.

As per claim 5, the limitation of wherein the first block diagram comprises a graphical data flow diagram is taught by Kodosky as the techniques of LabVIEW extends the concept to the data flow programming environment, e.g., the ADD icon will accept integer or floating point inputs and compute the proper result (see col. 3, lines

38-41) and the hierarchical diagram shows each VI icon exactly once and each icon has lines to all the other icons that is directly uses in its block diagram (see col. 4, lines 59-62). This claim is therefore rejected for the reasons as set forth above.

As per claims 6 (method) and 21 (memory medium), the limitations of including the user interface element in a program in response to user input, executing the program, and the first block diagram controlling functionality of the user interface element during execution of the graphical program are taught by Kodosky as the techniques of defining the connector for user associate each terminal of the connector with an indicator output or control input on the front panel of the VI (see col. 4, lines 20-22) and the user set high and low limits for the temperature and which activate warning messages when the temperature goes out of those limits. The histogram parameters may be adjusted. The user may choose to enable the acquisition and analysis processes independently (see col. 5, lines 17-25). These claims are therefore rejected for the reasons as set forth above.

As per claims 7 (method) and 22 (memory medium), the limitations of displaying the user interface element, receiving user input to the user interface element during execution of the program and the first block diagram controlling functionality of the user interface element in response to the user input received to the user interface element are taught by Kodosky as the technique of a LabVIEW user constructs a virtual instrument building block by defining an icon and connector for a virtual instrument. In

defining the connector for user associate each terminal of the connector with an indicator or control on the front panel of the VI (see col. 4, lines 16-22) and the user set high and low limits for the temperature and which activate warning messages when the temperature goes out of those limits. The histogram parameters may be adjusted. The user may choose to enable the acquisition and analysis processes independently and may set the update rate for the displays (see col. 5, lines 17-26). These claims are therefore rejected for the reasons as set forth above.

As per claim 8, the limitation of displaying the first block diagram after said including the user interface element in the program is taught by Kodosky as the technique of a LabVIEW user constructs a virtual instrument building block by defining an icon and connector for a virtual instrument. In defining the connector for user associate each terminal of the connector with an indicator or control on the front panel of the VI (see col. 4, lines 16-22) and the histogram parameters may be adjusted. The user may choose to enable the acquisition and analysis processes independently and may set the update rate for the displays (see col. 5, lines 23-26). This claim is therefore rejected for the reasons as set forth above.

As per claim 15, due to the similarity of this claim to the combination of claim 1, 3, and 7, this claim is therefore rejected for the reasons as set forth above.

As per claim 24, due to the similarity of this claim to that of claim 15, except for a memory medium instead of method claim, this claim is therefore rejected for the same reasons applied to claim 15.

As per claim 18, due to the similarity of this claim to the combination of claim 1, 6, and 7, this claim is therefore rejected for the reasons as set forth above.

As per claim 25, due to the similarity of this claim to that of claim 18, except for a memory medium instead of method claim, this claim is therefore rejected for the same reasons applied to claim 18.

As per claim 9, the limitation of receiving user input for editing the first block diagram after said including the user interface element in the program, editing the first block diagram in response to the user input for editing the first block diagram, and wherein said editing the first block diagram comprises changing how first block diagram controls functionality of the user interface element are taught by Kodosky as the techniques of Fig. 3 is a screen display showing an exemplary data flow block diagram which can be produced by the VI system (see col. 2, lines 23-25) and in defining the connector for user associate each terminal of the connector with an indicator output or control input on the front panel of the VI (see col. 4, lines 16-22) and once the icon and the connector have been constructed, it is then possible to use the VI as a node in a diagram (see col. 4, lines 23-25 and see Figs. 2 for nodes icon 44, 48, and 50), the

histogram parameters may be adjusted. The user may choose to enable the acquisition and analysis processes independently and may set the update rate for the displays (see col. 5, lines 23-26). This claim is therefore rejected for the reasons as set forth above.

As per claims 10 (method) and 23 (memory medium), the limitations of receiving user input to the user interface element and the first block diagram responding to the user input received to the user interface element to control functionality of the user interface element are taught by Kodosky as the technique of the user set high and low limits for the temperature and which activate warning messages when the temperature goes out of those limits. The histogram parameters may be adjusted (see col. 5, lines 17-23) and the user may choose to enable the acquisition and analysis processes independently and may set the update rate for the displays (see col. 5, lines 23-26). These claims are therefore rejected for the reasons as set forth above.

As per claim 11, the limitation of wherein the user input received to the user interface element is for interactively operating the user interface element without requiring execution of a program to operate the user interface element is taught by Kodosky as the technique of in LabVIEW there are two ways to produce constants: 1) create a front panel control, set its value and then hide it so only the terminal appears on the block diagram; 2) place a control directly on the diagram rather than on the control panel (see col. 5, lines 36-40). This claim is therefore rejected for the reasons as set forth above.

As per claim 12, the limitations of including the user interface element in a graphical program in response to user input, executing the graphical program; and the first block diagram controlling functionality of the user interface element during execution of the graphical program are taught by Kodosky as the techniques of defining the connector for user associate each terminal of the connector with an indicator output or control input on the front panel of the VI (see col. 4, lines 20-22) and the user set high and low limits for the temperature and which activate warning messages when the temperature goes out of those limits. The histogram parameters may be adjusted. The user may choose to enable the acquisition and analysis processes independently (see col. 5, lines 17-25). These claims are therefore rejected for the reasons as set forth above.

As per claim 13, the limitations of wherein the graphical program includes a second block diagram and wherein the second block diagram is separate from the first block diagram are taught by Kodosky as the technique of in LabVIEW, the conversion is does automatically, where necessary, in the dataflow block diagrams (see col. 3 line 68 to col. 4 line 1) and LabVIEW user create VIs which can be used as building blocks in other VIs (see col. 4, lines 54-55). This claim is therefore rejected for the reason as set forth above.

As per claim 14, the limitation of wherein the first block diagram is accessible from the second block diagram is taught by Kodosky as the technique of in LabVIEW, the conversion is does automatically, where necessary, in the dataflow block diagrams

(see col. 3 line 68 to col. 4 line 1) and LabVIEW user create VIs which can be used as building blocks in other VIs. VIs are analogous to subroutines so it is useful to display the hierarchical relationship of VIs (see col. 4, lines 54-57. This claim is therefore rejected for the reason as set forth above.

As per claim 16, due to the similarity of this claim to the combination of claims 1, 12, and 13, this claim is therefore rejected for the reasons as set forth above.

As per claim 17, the limitation of wherein the plurality of user interface elements comprises a plurality of primitive user interface controls provided by an application development environment is taught by Kodosky as the technique of a function is polymorphic if it can be applied to arguments of more than one type. In many computer languages, it is possible to form expressions such as A + B where A and B are integers or floating point numbers. The + operator is polymorphic because it computes the proper integer or floating point result, respectively. The + operator also said to be "overloaded" since it means both integer and floating point add, depending on the context. LabView extends this concept to the data flow programming environment (see col. 3, lines 30-40). This claim is therefore rejected for the reasons as set forth above.

As per claims 26, the limitation of wherein the first block diagram is operable to change appearance of the user interface element is taught by Kodosky as the technique of a virtual instrument building block by defining an icon and connector for a virtual

instrument. In defining the connector for user associate each terminal of the connector with an indicator or control on the front panel of the VI (see col. 4, lines 16-22) and once the icon and the connector have been constructed, it is then possible to use the VI as a node in a diagram (see col. 4, lines 23-25 and see Figs. 2 for nodes icon 44, 48, and 50), and wherein a library of function icons, **each representing a mathematical operation to be performed on specified input data to generate output data** (see col. 8, lines 53-55). This claim is therefore rejected for the reasons as set forth above.

As per claims 30, 33, 34 and 38-39, due to the similarity of each of these claims to that of claim 26, these claims are therefore rejected for the same reasons applied to claim 26.

As per claim 27, the limitation of wherein the first block diagram is operable to change a manner in which data is displayed in the user interface element is taught by Kodosky as the technique of LabVIEW user crates VIS which can be used as building blocks in other VIs. VIs are analogous to subroutines so it is useful to display the hierarchical relationship of VIs. LabVIEW automatically constructs a diagram showing the hierarchical of all VIs in memory (see col. 4, lines 54-59). This claim is therefore rejected for the reason as set forth above.

As per claims 31 and 35, due to the similarity of each of these claims to that of claim 27, these claims are therefore rejected for the same reasons applied to claim 27.

As per claim 32, the limitation of wherein the first block diagram is operable to control an appearance of the plurality of user interface elements is taught by Kodosky as the technique of for similar inputs, a function is performed on the respective of the structures (see col. 5, lines 56-57). This claim is therefore rejected for the reasons as set forth above.

As per claim 28, Kodosky discloses the limitations of copying the user interface from a first graphical program to a second graphical program and programmatically including the first block diagram in the second graphical program as the technique of user access by **selecting the Graphical Array and Graph from Functional Palette** (see col. 8, lines 31-33 and see Fig. 19) **from users created VIs for building blocks in other VIs** (see col. 4, lines 41-42) and **VIs are analogous to subroutines** so it is useful to display the hierarchical relationship of VIs (see col. 4, lines 55-57). This claim is therefore rejected for the reasons as set forth above.

As per claim 36, due to the similarity of this claim to that of claim 28, this claim is therefore rejected for the same reasons applied to claim 28.

As per claim 29, Kodosky discloses the limitations of copying the user interface element from a first graphical program to a second graphical program and programmatically associating the first block diagram with the second graphical program

as the technique of user access by **selecting the Graphical Array and Graph from Functional Palette** (see col. 8, lines 31-33 and see Fig. 19) **from users created VIs for building blocks in other VIs** (see col. 4, lines 41-42) and VIs are analogous **to subroutines so it is useful to display the hierarchical relationship of VIs** (see col. 4, lines 55-57). This claim is therefore rejected for the reasons as set forth above.

As per claim 37, due to the similarity of this claim to that of claim 29, this claim is therefore rejected for the same reasons applied to claim 29.

4. Applicant's arguments filed on October 04, 2004 have been fully considered, but they are not persuasive.

On the last paragraph of page 10 to the second paragraph of page 11, Applicant agues that " In contrast, Claim 1 recites a method whereby the first block diagram "is operable to control functionality of the user interface element". Thus, in the present claims, unlike the Kodosky patent, the "first block diagram" is not for generating data that is displayed in the user interface element or for providing output data to the user interface element". And "For example, the Summary of the Invention states that: " The block diagram associated with the user interface element may control functionality of the user interface element in any way. The block diagram may perform very simple or very complex operations. For example, the block diagram may include a small number of nodes, e.g., one or two, operable to change various user interface characteristic affecting the appearance of the user interface element.... operable to perform complex

mathematical operations on data...". The Examiner, however, does not agree to this argument since "is operable to control functionality of the user interface element" is taught by Kosdosky as the technique of pluralities of nodes icon 44, 48, and 50 in Fig. 2, wherein a library of **function icons, each representing a mathematical operation to be performed on specified input data to generate output data** (see col. 8, lines 53-55). Thus, **a mathematical input operation of each of plurality icons will, in turn, control the functionality and performance of output data**. The citation of "operable to change various user interface characteristic affecting the appearance of the user interface element" is taught by Kodosky as the technique of the front panel terminals are used to input and output data between the front panel controls/indicators and the function blocks of the block diagram (see col. 9,lines 17-20), and "operable to perform complex mathematical operations on data" is taught by Kosdosky as the technique wherein a plurality of function icons, **each representing a mathematical operation to be performed on specified input data to generate output data** (see col. 8, lines 53-55).

On the third paragraph of page 11, Applicant agues that " Applicant respectfully submits that the Kodosky patent does not teach or suggest " wherein the first block diagram includes a plurality of nodes visually indicating functionality of the user interface element". The Examiner, however, does not agree to this argument since this limitation is taught by Kodosky as the technique of LabVIEW user construct a virtual instrument building block by defining an icon and connector for a virtual instrument. In defining the

connector for user associate each terminal of the connector with an indicator or control on the front panel of the VI (see col. 4, lines 16-22), once the icon and the connector have been constructed, it is then possible to use the VI as **a node in a diagram** (see col. 4, lines 23-25) and LabVIEW users **create VIs which can be used as building blocks in other VIs** (see col. 4, lines 41-42 see Figs. 2 for **nodes icon 44, 48, and 50**), wherein a plurality of function icons, **each representing a mathematical operation to be performed on specified input data to generate output data** (see col. 8, lines 53-55). Therefore, **a mathematical input operation of each of plurality icons will, in turn, control the functionality and performance of output data.**

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CUONG T THAI whose telephone number is (571)272-4056. The examiner can normally be reached on 8:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CUONG T THAI
Examiner
Art Unit 2173

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March 04, 2005.

JOHN CABECA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 21